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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION N
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5073	7590	10/19/2004	EXAMINER	
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SUITE 600			PAPER NUMBER	
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DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

8

Office Action Summary

Application No.

10/004,949

Applicant(s)

WARD, DARRELL L.

Examiner

Cameron Saadat

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/21/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-16 is/are allowed.
- 6) ☒ Claim(s) 1-7, 10, 17-20 and 22-40 is/are rejected.
- 7) ☒ Claim(s) 8, 9 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/21/04 has been entered. Claims 1-40 are pending in this application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 37-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Lemelson et al. (USPN 5,823,788; hereinafter Lemelson).

Regarding claim 37, Lemelson discloses a graphical user interface, comprising: a plurality of sections on a display 14 simultaneously viewable by users of a plurality of remote units (See Fig. 1), each section corresponding to one of the remote units, each section displaying: a first portion displaying a remote unit identifier identifying the remote unit corresponding to the section; and a second portion displaying a question identifier identifying a particular one of a plurality of questions; and a visual indication operable to be displayed in a selected section of the display when a message is received by a base station from a selected remote unit corresponding to the selected section, wherein the message comprises a response to the question identified by the question identifier (Col. 1, lines 56-61; Col. 2, line 65 -Col. 3, line 31).

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Regarding claim 38, Lemelson discloses a graphical user interface, wherein the graphical user interface appears on a single display 14 simultaneously viewable by all of the users of the remote units (See Fig. 1; Col. 2, line 65 -Col. 3, line 31).

Regarding claim 39 Lemelson discloses a graphical user interface, wherein the second portion is further operable to display a new question identifier in response to a command from the remote unit (Col. 3, lines 30-35).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-7, 10, 17-19, 20, 22, are rejected under 35 U.S.C. 103(a) as being unpatentable over Abrahamson et al. (USPN 5,002,491; hereinafter Abrahamson) in view of Jellinek et al. (USPN 5,736,984; hereinafter Jellinek).

Regarding claim 1, Abrahamson discloses a method for communicating in an education environment, comprising: determining a current question from a plurality of questions, the current question having a plurality of possible answers (Col. 10, line 30); receiving a message from a remote unit, the message comprising a remote unit identifier (Col. 4, line 67) and a response (col. 5, lines 10-11);

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determining if the response is correct, and visually indicating if the response is correct or incorrect (Col. 12, lines 48-50).

Regarding claim 17, Abrahamson discloses a communication system comprising: a plurality of remote units; a memory operable to store a plurality of possible answers to a plurality of questions; a base station operable to receive messages from the remote units, each message comprising a remote unit identifier (Col. 4, line 67) and a response (col. 5, lines 10-11); a processor operable to determine if the response is correct, and visually indicating if the response is correct (Col. 12, lines 48-50); and a display simultaneously viewable by all users of the remote units and operable to visually indicate to the users whether their respective current responses are correct (Col. 5, lines 20-26).

Abrahamson discloses all of the features of claims 1 and 17 with the exception of explicitly disclosing the feature of “determining that the current response is valid if the current response corresponds to *any* of the possible answers for the current question”. However, the feature of validating user input is well known in the art. In addition, Jellinek discloses a computer system comprising a graphical processing element for processing user input, wherein the system determines whether a user’s input is a valid input value by comparing the user’s input with a set of defined input values that are appropriate (Col. 5, lines 30-40). If the input is valid, the graphical processing element processes the input values, and if the value is determined invalid a visual indication is provided in the form of an error message (Col. 4, lines 40-54). Thus, in view of Jellinek, it would have been obvious to an artisan to modify the visual feedback described in Abrahamson, by providing a visual indication of whether a response is a valid response, in order to inform a user whether a response is acceptable for the system to process and thereby allowing a user to modify the response into a form that is acceptable for processing in the system.

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Regarding claim 2, Abrahamson discloses a method wherein the visual indication steps are performed using a single display simultaneously viewable by all users of the remote systems (Col. 5, lines 20-26).

Regarding claim 3, Abrahamson discloses a method further comprising: receiving a command from the remote unit; and in response to the command, determining a student's strengths and weaknesses to provide remedial action. It is not explicitly stated that the remedial action is determining a new current question. However, the interactive learning system described in Abrahamson is structured through exercises and quizzes, and if not implicit, it would have been obvious to one of ordinary skill in the art that the remedial action includes further quizzing. In addition this type of *adaptive learning* is notoriously well known in the art.

Regarding claim 4, Abrahamson discloses a method further comprising: determining a current question for a second one of the remote units; receiving a message comprising a remote unit identifier (Col. 4, line 67) and a response (col. 5, lines 10-11); determining if the response of the second remote unit is correct (Col. 12, lines 48-50).

Regarding claims 5 and 18, Abrahamson discloses a method wherein the message from the remote unit is communicated as a wireless signal (Col. 7, line 56).

Regarding claim 6, Abrahamson discloses a method further comprising: determining that a correct response for each of the questions has been received from the remote unit; and visually indicating to a user that a correct response for each of the questions was received (Col. 12, lines 48-50).

Regarding claims 7 and 22, Abrahamson discloses a method further comprising: determining that a valid response for each of the questions has been received from the remote unit; and visually indicating to a user that a correct response for each of the questions was received (Col. 12, lines 48-50); and comparing the responses to a set of correct answers to the questions; and determining a score for the complete set of responses (Col. 11, lines 22-25). Abrahamson does not explicitly disclose the step of

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validating a response before processing the response for correctness. However, the feature of validating user input is well known in the art. In addition, Jellinek discloses a computer system comprising a graphical processing element for processing user input, wherein the system determines whether a user's input is a valid input value by comparing the user's input with a set of defined input values that are appropriate (Col. 5, lines 30-40). If the input is valid, the graphical processing element processes the input values, and if the value is determined invalid a visual indication is provided in the form of an error message (Col. 4, lines 40-54). Thus, in view of Jellinek, it would have been obvious to an artisan to modify the processing of responses described in Abrahamson, by validating in order to inform a user whether a response is acceptable for the system to process and thereby allowing a user to modify the response into a form that is acceptable for processing in the system.

Regarding claim 10, Abrahamson discloses a method wherein questions are ordered in a sequence, wherein the questions have a plurality of possible answers; visually indicating if a user's response is correct for each question in the sequence (Col. 17, lines 1-8).

Regarding claim 19, Abrahamson discloses all of the claimed subject matter with the exception of explicitly disclosing that the base station receives a first message from a remote unit and rejects subsequent messages for a specified duration. However, it is the examiner's position that the feature of limiting user response is notoriously well known in an educational examination environment, and it would have been obvious to one of ordinary skill in the art to modify the system described in Abrahamson, by limiting the number of responses that are accepted for each question, so that the response can be recorded and feedback can be administered shortly thereafter.

Regarding claim 20, Abrahamson discloses a system wherein the processor is further operable to change the current question for one of the remote units (Col. 4, lines 48-52).

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Claim 23-26, 28-33, 35-36 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemelson et al. (USPN 5,823,788; hereinafter Lemelson) in view of Ziv-El (USPN 6,302,698 B1).

Regarding claims 23 and 30, Lemelson discloses a method and system for communicating in an education environment, comprising: displaying a plurality of sections on a display, each one of the sections associated with one of a plurality of remote units; receiving from a selected remote unit a message comprising a remote unit identifier for the selected remote unit and a current response to a question (Col. 1, lines 56-61), the question having a plurality of possible responses; and in response to receiving the current response from the selected remote unit, displaying a visual indication in the section corresponding to the selected remote unit (Col. 3, lines 1-7); (as per claim 30) wherein the display is simultaneously viewable by users of the remote units (Col. 1, lines 56-61; Col. 2, line 65 -Col. 3, line 31). Lemelson does not explicitly disclose a *visual indication indicating whether the current response corresponds to a previous response* to the question received from the one remote unit. However, Ziv-El teaches an educational system wherein a visual indication is provided indicating whether the current response corresponds to a previous response to the question received from a remote unit (see “ok”, “tries” and “response” sections in Fig. 14). Hence, it would have been obvious to an artisan to modify the visual indications described in Lemelson, by providing an indication of whether the current response corresponds to a previous response to the question, in light of the teachings of Ziv-El, such that a teacher may identify how many times a student has attempted to respond to a question, and thereby allowing a teacher to track each student’s progress on a dynamic screen.

Regarding claims 24 and 31, Lemelson discloses a method, wherein the display is simultaneously viewable by all of the users of the remote units (Col. 3, lines 1-24).

Regarding claims 25 and 32, Lemelson discloses a method further comprising displaying the remote unit identifier for each remote unit in the corresponding section of the display (Col. 3, lines 5-6).

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Regarding claims 26 and 33, Lemelson discloses all of the claimed subject matter with the exception of explicitly disclosing that the visual indication comprises flashing the remote unit identifier in a particular color. However, Ziv-El teaches an educational method, wherein the remote unit identification further comprises color-coding for the visual indications (Col. 22, lines 53-66). Hence, it would have been obvious to a person of ordinary skill in the art to modify the visual indications described in Lemelson, by providing color-coding for the visual indications, in light of the teachings of Ziv-El, such that a teacher may examine each of the users' progress on a dynamic screen.

Regarding claims 28 and 35, Lemelson discloses a method, wherein: the message is received from the selected remote unit wirelessly (Col. 1, lines 37-60); and subsequent messages from the one remote unit are disregarded for a predetermined amount of time after the current message is received (Col. 16, lines 53-60).

Regarding claims 29 and 36, Lemelson discloses a method wherein a different question may be associated with each remote unit, and the method further comprises determining the question associated with the selected remote unit (Col. 4, lines 2-16).

Regarding claim 40, Lemelson does not explicitly disclose a visual indication indicating whether the current response corresponds to a previous response to the question received from the one remote unit. However, Ziv-El discloses an educational system wherein a visual indication is provided indicating whether the current response corresponds to a previous response to the question received from the one remote unit (see tries section, Fig. 14). Hence, it would have been obvious to a person of ordinary skill in the art to modify the visual indications described in Lemelson, by providing an indication of whether the current response corresponds to a previous response to the question, in light of the teachings of Ziv-El, such that a teacher may identify how many times a student has attempted to respond to a question, and thereby allowing a teacher to track a student's progress on a dynamic screen.

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Claims 27 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemelson et al. (USPN 5,823,788; hereinafter Lemelson) in view of Ziv-El (USPN 6,302,698 B1), further in view of Sonnenfeld (USPN 6,112,049).

Regarding claims 27 and 34, Lemelson discloses a method, further comprising: determining whether the current response corresponds to a correct or incorrect answer. The combination of Lemelson and Ziv-El does not explicitly disclose the feature of determining that a response does not correspond to any of the possible answers to the question. However, Sonnenfeld teaches an educational method wherein each question result indicates whether a response was correct, incorrect, or if it does not correspond to any of the possible answers (Col. 62, lines 47-63). In view of Sonnenfeld it would have been obvious to an artisan to modify the response analysis described in the combination of Lemelson and Ziv-El by indicating that a response does not correspond to any possible response in order to accurately compute question response statistics, which indicate whether a user responded correctly, incorrectly, or provided no response or an unknown response.

Allowable Subject Matter

Claims 11-16 are allowed. Claims 8-9 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

The prior art of record fails to teach the specific combination of elements as claimed in independent claim 11. In particular the prior art fails to teach *inter alia* a graphical user interface having a plurality of sections, each section displaying a remote unit identifier, and each section comprising a first visible indication that is displayed in the section when a current response received from a remote unit, corresponding to the section, is not a valid response for a question; a second visible indication that is displayed when the current response is a valid response and no previous valid responses have been

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submitted to the current question; a third visible indication that is displayed when the current response is a valid response that matches a previous valid response; and a fourth visible indication operable to be displayed when the current response is a valid response different from a previous valid response.

Patentability is also seen in, although not limited to: dependent claims 8 and 21 the combination of elements including a communication method and system having a plurality of remote units; receiving a message from a remote unit having a remote unit identifier and a current response; determining that the current response is valid if the current response corresponds to any of the possible answers for the current question; providing a visible indication if the current response matches a previous valid response for the current question; providing a visible indication if the current response does not match the previous valid response; and providing a visible indication if no previous valid response has been received from the remote unit. The closest prior art of record does not teach or fairly suggest this feature in the combination.

Response to Arguments

Applicant's arguments filed 6/21/2004 have been fully considered. Applicant's assertion of the difference between "validity" and "correctness" has been considered. However, arguments with respect to claims 1, 2, 4-7, 10, 17, 18, 20, and 22 are moot in view of the new ground of rejection.

Applicant's arguments, with respect to claims 11-16, 8-9, and 21 have been fully considered and are persuasive.

Applicant's arguments with respect to claims 23, 30, and 37 have been fully considered but they are not persuasive. Applicant emphasizes that Ziv-El fails to teach or suggest the feature of claims 23 and 30 of providing a "visual indication indicating whether the current response corresponds to a previous response to the question received from the selected remote unit". Applicant indicates that the "tries" section in Fig. 14 of Ziv-El shows the total number of incorrect answers submitted by a student, not whether the current response corresponds to a previous response. However, Ziv-El teaches a dynamic screen that identifies whether a student's current response corresponds to a previous response (See Fig.

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14, "ok", "tries", "response" sections). For example, the dynamic screen provides a visual indication that student Jim Miller has a current response of "Fidgety" which is correct (see "ok" column). The "tries" column indicates that this student took two tries to get the correct response. Thus, it is clear that the student's current response does not correspond to his previous first response, which was incorrect. Ziv-El therefore teaches the feature of providing "a visual indication indicating whether the current response corresponds to a previous response to the question received from the selected remote unit".

Applicant additionally asserts that Lemelson fails to disclose aspects of claim 37 including, "a plurality of sections on a display simultaneously viewable by users of a plurality of remote units". However, Lemelson discloses an educational system comprising a plurality of sections on a class display 14 simultaneously viewable by users of a plurality of remote units (See Fig. 1). The class display 14 is part of the instructor base station 11 that includes an instructor display and a class display. Student responses are transmitted to this base station along with an identifier code and the student's answer (Col. 1, lines 56-61). In addition, the instructor may display the information generated by the base station 11 on the class display 14 (Col. 3, lines 20-24). The base station gathers and displays information including student responses with remote unit identifiers (Col. 1, lines 56-61) and question identifiers (Col. 3, line 31). Therefore, Lemelson discloses all of the features of claim 37.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kucinski et al. (USPN 6,173,154) disclose an educational system wherein students respond to questions, and responses that cannot be given a numeric grade are considered invalid.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cameron Saadat whose telephone number is 703-305-5490. The examiner can normally be reached on M-F 9:00 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai can be reached on 703-308-2064. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CS


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GAU 3713